

Claims

1. Flexible coupling for mutually connecting two shaft ends, in particular in the drive train of a motor vehicle, having
 - 5 – a flexible disk (10) made of rubber-elastic material, which has a central axis (A),
 - at least two first and two second connection bodies (32, 34), which are inserted alternately, with their own axis (B) parallel to the central axis (A), around the axis (A), at angular distances from one another into the flexible disk (10) and are intended to be fastened each to one of the shaft ends,
 - 10 – flexible inserts (20), which are embedded in the flexible disk (10) and extend around adjacent connection bodies (32, 34), and
 - a centring device 40) for mutually centring the two shaft ends, characterized in that
 - 15 – the centring device (40) comprises a first and a second end plate (22, 24), which are arranged centred in relation to one another each against one end face (12, 14) of the flexible disk (10) and are pivotable about a joint centre (C) lying on the central axis (A), and
 - independently of their subsequent fastening to the first and/or second shaft 20 end the first connection bodies (32) are fastened to the first end plate (22) and the second connection bodies (34) to the second end plate (24) rigidly and securely against rotation.
2. Flexible coupling according to claim 1,
25 characterized in that the two end plates (22, 24) each have a collar (36, 38) engaging into the flexible disk (10) and are centred in relation to one another by means of said collars.
3. Flexible coupling according to claim 1,
30 characterized in that the two end plates (22, 24) each have a collar (62, 64) embracing the flexible disk (10) radially at the outside and are centred in relation to one another by means of said collars.

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4. Flexible coupling according to claim 2 or 3,
characterized in that the two end plates (22, 24) are held by means of their collars
(36, 38; 62, 64) in axial abutment with the flexible disk (10).

5 5. Flexible coupling according to one of claims 1 to 4,
characterized in that the connection bodies (32, 34), at the edge of a hole (30) of
the associated end plate (22, 24) that receives them, are welded to said end plate.

10 6. Flexible coupling according to one of claims 1 to 5,
characterized in that the connection bodies (32, 34) in each case by means of an
anchoring profile (72) formed thereon are anchored securely against rotation on the
associated end plate (22, 24).

15 7. Flexible coupling according to one of claims 1 to 6,
characterized in that the connection bodies (32, 34) are inserted in each case into a
sleeve (18), which is associated with and embedded in the flexible disk (10) and
around which at least one of the flexible inserts (20) is looped.

20 8. Flexible coupling according to claim 7,
characterized in that the sleeve (18) is connected to the associated connection body
(32, 34) such as to transmit tensile forces in the direction of the axis (B) of said
connection body and the associated end plate (22, 24) is therefore held in abutment
with the flexible disk (10).

25 9. Flexible coupling according to one of claims 1 to 8,
characterized in that the connection bodies (32, 34) each have a flange (48) for ef-
fecting fastening to the associated end plate (22, 24).

30 10. Flexible coupling according to one of claims 1 to 9,
characterized in that the connection bodies (32, 34) each have a projection (50) for
effecting centring on the associated shaft end.

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11. Flexible coupling according to one of claims 1 to 10,
characterized in that the flexible disk (10) is held under radial bias by the end plates
(22, 24) in combination with the connection bodies (32, 34).